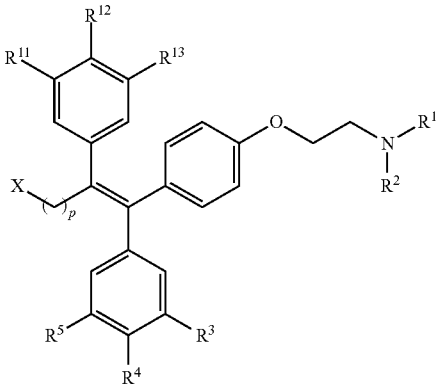
[0009] In some embodiments, the TiPARP agonist is a tamoxifen compound within the following generic formula:

(1)



wherein:

R^1 and R^2 are independently selected from alkyl groups containing one to three carbon atoms, or alternatively, R^1 and R^2 may interconnect to form a five-membered or six-membered heterocycloalkyl ring;

R^3, R^4, and R are independently selected from hydrogen atom, halogen atom, methyl, ethyl, hydroxy (OH), methoxy (—OCH_3), and ethoxy (—OCH_2CH_3);

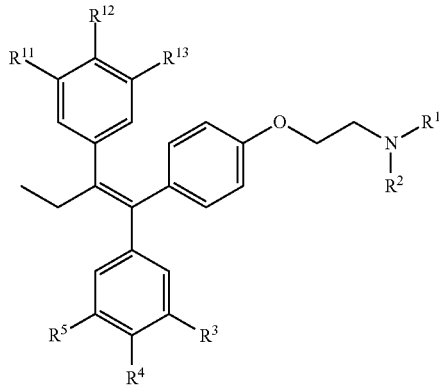
R^{11}, R^{12} and R^{13} are independently selected from hydrogen atom, hydroxy, and methoxy groups;

X is a hydrogen atom or halogen atom; and

p is 2 or 3.

[0010] In some embodiments, the tamoxifen compound has the following structure:

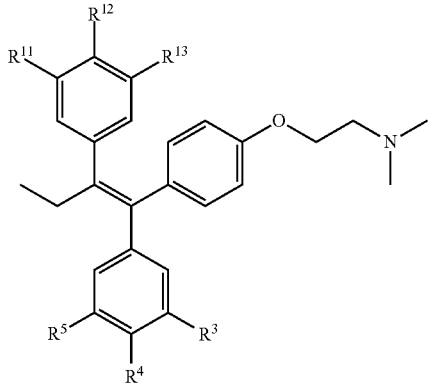
(1a)



[0011] In some embodiments, R^1 and R^2 are independently selected from alkyl groups containing one to three carbon atoms.

[0012] In some embodiments, R^1 and R^2 are methyl groups, which corresponds to the following structure:

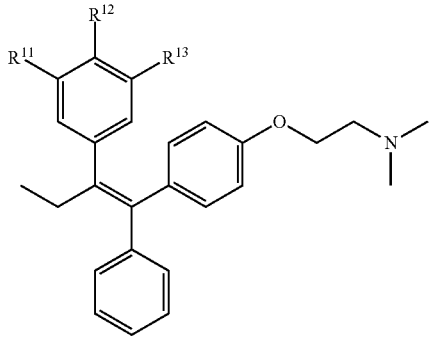
(1b)



[0013] In some embodiments, R^3 and R^5 are hydrogen atoms and R^4 is selected from the group consisting of halogen atom, methyl, ethyl, hydroxy (OH), methoxy (—OCH_3), and ethoxy (—OCH_2CH_3).

[0014] In some embodiments, R^3, R^4, and R^5 are hydrogen atoms, which corresponds to the following structure:

(1c)



[0015] In some embodiments, at least one of R^{11}, R^{12}, and R^{13} is a hydroxy or methoxy group.

[0016] In some embodiments, R^{11} and R^{13} are hydrogen atoms and R^{12} is a hydroxy or methoxy group.

[0017] In some embodiments, the compound has the following structure:

(1d)